Remarks/Arguments

Applicants thank Examiner Brewster for his careful examination of this application and clear explanation of the claim rejections. In response, applicants cancel claims 8-15 to be examined at a later date. Regarding claims 1-7 and 16-25, applicants respectfully submit that the rejections are improper because the prior art does not disclose all the claim limitations in the claims:

Claim 1

Claim 1 describes a method for treating an area of a semiconductor wafer surface. One limitation of claim 1 requires that the treated area be melted by a laser beam and re-solidify into a more planar profile. This limitation is not disclosed in the Dias publication.

The Dias publication discloses a microelectronic device that has a beveled sidewall.[1] The Office action notes that Dias, in 124, p. 2, ¶24 discloses treating the area with a laser, wherein the treated area is melted by a laser beam and resolidifies into a more planar profile. This is not supported in the Dias publication.

The term "a more planar profile" in claim 1 has an unambiguous meaning in view of the specification. It is well established that "[a] fundamental rule of claim construction is that terms in a patent document are construed with the meaning with which they are presented in the patent document. Thus claims must be construed so as to be consistent with the specification, of which they are a part."[2] The clear and unambiguous meaning of the term "a more planar profile" is that the treatment in claim 1 makes an area from a less planar state to a more planar state.

It is clearly stated in the specification of this application that the area before the treatment is relatively "non-planar", and that "at least a portion of the surface irregularities may be vaporized... then resolidifies into a more planar profile...."[3] Therefore, Dias anticipates this limitation if it discloses treating a non-planar surface area and makes it more planar. This Dias does not do.

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[1] See US 20030104679, Abstract.
[2] Playtex Prods., Inc. v. Procter & Gamble Distrib. Co., 400 F.3d 901, 73 U.S.P.Q. 2D 2010 (Fed. Cir. 2005), quoting Merck & Co. v. Teva Pharm. USA, Inc., 347 F.3d 1367, 1370 (Fed. Cir. 2003).
[3] See, for example, p. 11, ¶[0036].

Element 124 in Fig. 2, which the Office Action specifies as the area corresponding to the area in claim 1, is the sidewalls of a V-shaped notch. And the sidewalls terminate at an intersection location within the semiconductor wafer.[4] Comparing Fig. 2 to Fig. 1 clearly reveals that Dias teaches forming a V-shaped notch 126 on a previously un-notched surface 106.

Because a notched surface is not "more planar" than a un-notched surface, the Dias publication does not disclose at least the "more planar" limitation of claim 1.

Claim 16

Claim 16 also has the limitation of a step in which a portion of a semiconductor wafer resolidifies into a more planar profile. For the same reason as presented regarding claim 1 - Dias teaches digging a trench on the surface to form a V-shaped notch, the Dias publication does not disclose at least this limitation.

Claims 2-7

Claims 2-7 properly depend from claim 1 and stand patentable at least by virtue of their dependency.

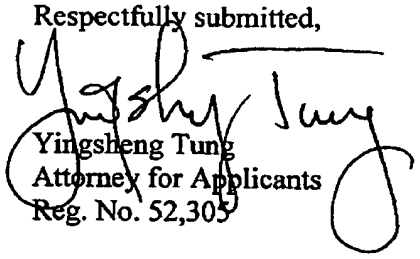
Claims 17-23

Claims 17-23 properly depend from claim 16 and stand patentable at least by virtue of their dependency.

[4] See US 20030104679, p. 2, ¶[0033].

In summary, applicants respectfully submit that this application is in allowable form and claims 1-7 and 16-23 distinguish over the Dias publication and stand patentable. Applicants respectfully request further examination of this application and timely allowance of all pending claims.

Respectfully submitted,



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